miConverter™ S-Series S/FXT

Ultra-Compact 10/100/1000 to 100Mbps Fiber Media Converter

miConverter S/FXT Fast Ethernet fiber to 10/100/1000BASE-T media converters are ideal for mobile applications where light weight, compact size and low power are critical requirements. Weighing less than 2.5 oz. (72 grams), and about the length of a standard house key, the miConverter S-Series converters can conveniently slip into any pocket or laptop carrying case for easy portability.

These ultra-compact media converters can be USB powered, enabling fiber connectivity to locations where AC or DC power is unavailable, such as field-deployed fiber-to-the-laptop and military applications. Fiber is run directly to the laptop, where it is converted to copper UTP and connected to a laptop RJ-45 port with a standard Ethernet patch cable. Power is supplied to the media converter by the laptop's USB port using a standard USB cable, eliminating the need for an electrical outlet.

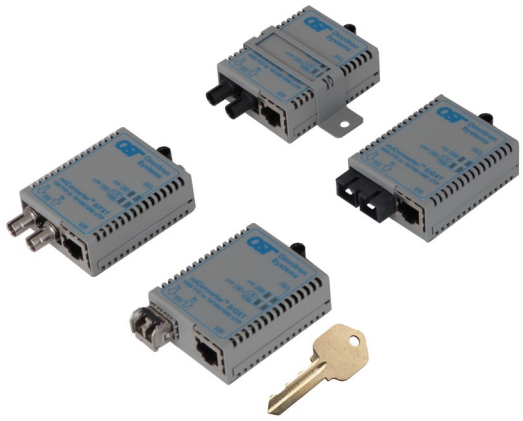
For applications not utilizing USB power, the S-Series product is also available with a country specific AC/DC power adapter, providing compatibility with electrical outlet types found around the world.

The miConverter S-Series delivers plug-and-play set up with an RJ-45 port that auto-negotiates the speed, duplex mode and cross-over functions for laptops with 10BASE-T, 100BASE-T or 1000BASE-TX Ethernet. LEDs display status of power, network connectivity and data activity.

The S-Series is available with 100BASE-X fixed fiber transceivers (SC or ST connectors), and supports multi-mode, single-mode and single-fiber options. It also supports Small Form Pluggable (SFP) transceivers. SFP transceivers enable adaptability to different fiber types, speeds and distances, and support Coarse Wave Division Multiplexing (CWDM) technology to increase the bandwidth capacity of fiber infrastructure.

S-Series media converters support a standard operating temperature range of 0 to 50°C. Models are also available with a wide operating temperature range of -40 to 60°C for deployments in harsh environments.

Easy to pack and convenient for mobile applications, the S-Series media converter is available with an optional traveling case that stores the media converter, power adapter, USB cable and other accessories.



SFPs and key not included

KEY FEATURES

- Ultra compact Fast Ethernet copper to fiber media converters that weigh less than 2.5 oz.
- Smallest media converters available
- Cost effective
- Fixed fiber port supports multimode and single-mode dual fiber with ST and SC connectors; and single-mode single-fiber with SC connectors
- SFP transceivers for standard or CWDM wavelengths
- RJ-45 port supports 10/100/1000BASE-T and MDI/MDIX auto-crossover
- Supports Jumbo Ethernet Frames up to 10,240 bytes
- Plug-and-Play capability with auto-negotiation
- USB powered for portability
- AC power adapter options for US and International
- LED indicators for Power, RJ-45 and Fiber status
- Convenient travel case
- Commercial (0 to 50°C) and wide (-40 to 60°C) temperature range
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

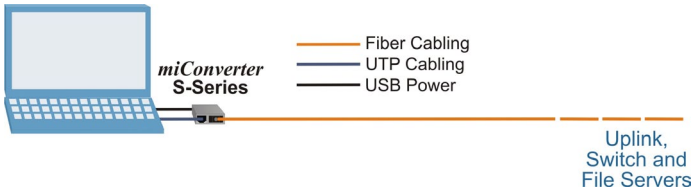
APPLICATION EXAMPLES

Fiber to the Laptop

The application diagram depicts a laptop computer connected to a fiber network.

The miConverter S-Series media converter connects to the laptop using two cables. The USB Power Cable draws electrical current from the USB port (1.0 or 2.0) of the laptop. Power from the USB port of the computer is automatically shut off when the computer is powered down, turning off the media converter. The UTP cable provides connectivity between the laptop and the copper port on the converter. The converter provides 10/100/1000BASE-T UTP to a 100BASE-X fiber conversion, which can extend the fiber link up to 30km.

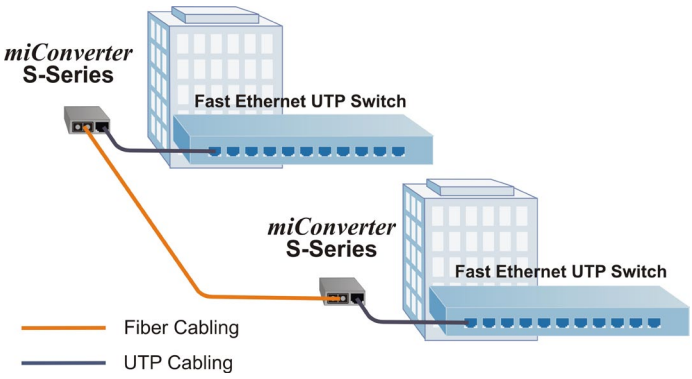
The miConverter S-Series media converter is an excellent solution for fiber-to-the-laptop applications where Gigabit fiber connectivity is required and local power is not available.



Fiber Extension

In this application, a pair of miConverter S-Series media converters are used to connect Ethernet switches between buildings via fiber. UTP cables connect the media converters to the Fast Ethernet switches.

Multimode, single-mode, or single-mode single-fiber can be used.



SPECIFICATIONS

Description	***miConverter* S/FXT** 10/100BASE-T Copper to 100BASE-X Fiber Media Converter	
Standard Compliances	IEEE 802.3	
Regulatory Compliances	Safety: EMI: ACT:	UL, CE, UKCA FCC 15 Class B TAA, BAA, NDAA
Environmental	RoHS, WEEE, REACH	
Frame Size	Up to 10,240 bytes	
Port Types	Copper: Fiber:	10/100/1000BASE-T (RJ-45) 100BASE-FX/LX (ST, SC, SFP) 100BASE-BX (SC Single-Fiber)
Cable Types	Copper: Fiber:	EIA/TIA 568A/B, Cat 5 UTP and higher Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm
AC Power Requirements	AC/DC Adapter:	110 - 120VAC/50 - 60Hz 0.02A @ 120VAC (max) USB micro-B
DC Power Requirements	DC Input (USB):	5.0VDC, 0.5A @ 5VDC USB micro-B
Dimensions W x D x H	1.75" x 2.25" x 0.84" (44.5 mm x 57.2 mm x 21.3 mm)	
Weight	Module Only: With USB cable: With AC/DC adapter and USB cable:	2.5 oz. (70.9 grams) 3.8 oz. (107.7 grams) 12 oz. (340.2 grams)
Temperature	Commercial: Wide: Storage:	0 to 50°C -40 to 60°C -50 to 80°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
MTBF (hrs)	Module Only: US AC/DC Adapter: Universal AC/DC Adapter:	1,300,000 50,000 200,000
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

ORDERING INFORMATION

Step 1: Choose a Base Part Number (xxxx-x-pt)

Fiber Type	Distances	Connector Types				Tx / Rx Lambda (nm)	Min. Tx Power (dBm)	Max. Tx Power (dBm)	Min. Rx Power (dBm)	Max. Rx Power (dBm)	Min Attenuation (dB)	Link Budget (dB)
		ST	ST Metal	SC	SFP							
-	-	-	-	-	1619-0	-	-	-	-	-	-	-
MM/DF	5km	1600-0-pt	1600M-0-pt	1602-0-pt	-	1310 / 1310	-24	-14	-31	-14	-	7
SM/DF	30km	1601-1-pt	1601M-1-pt	1603-1-pt	-	1310 / 1310	-15	-8	-31	-8	-	16
SM/SF[1]	20km	-	-	1610-1-pt	-	1310 / 1550	-15	-5	-30	-3	-	15
SM/SF[1]	20km	-	-	1611-1-pt	-	1550 / 1310	-15	-5	-30	-3	-	15

[1] When using single-fiber (SF) media converter models, the Tx wavelength on one end has to match the Rx wavelength on the other.
MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber
Contact Omnitron for other fiber options. Order the appropriate SFPs separately. Visit the Omnitron Optical Transceivers web page.

Step 2: Choose a Power Option (xxxx-x-pt)

1 = micro-B USB Connector, AC/DC Power Adapter and USB Power Cable, 110-240VAC, 50-60Hz, with US power
1T = micro-B USB Connector, AC/DC Power Adapter, USB Power Cable and Travel Case, 110-240VAC, 50-60Hz, with US power
3 = micro-B USB Connector, AC/DC Power Adapter and USB Power Cable, 110-240VAC, 50-60Hz, with European power clip
4 = micro-B USB Connector, AC/DC Power Adapter and USB Power Cable, 110-240VAC, 50-60Hz, with UK power clip
5 = micro-B USB Connector, AC/DC Power Adapter and USB Power Cable, 110-240VAC, 50-60Hz, with Australian power clip
6 = micro-B USB Connector, USB Power Cable, No AC/DC Power Adapter
6T = micro-B USB Connector, USB Power Cable and Travel Case, No AC/DC Power Adapter
8 = micro-B USB Connector, AC/DC Power Adapter and USB Power Cable, 110-240VAC, 50-60Hz, with US/Japan power
8T = micro-B USB Connector, AC/DC Power Adapter, USB Power Cable and Travel Case, 110-240VAC, 50-60Hz, with US/Japan power

Step 3: Choose an Operating Temperature Option (xxxx-x-pt)

<leave blank> = Commercial temperature (0 to 50°C)
W = Wide temperature (-40 to 60°C)

ACCESSORIES

Model Number	Description
9146-1	Spare US/USB AC adapter and 3ft. USB power cable
9146-3	Spare European/USB AC adapter and 3ft. USB power cable
9146-4	Spare UK/USB AC adapter and 3ft. USB power cable
9146-5	Spare Australian/USB AC adapter and 3ft. USB power cable
9146-8	Spare Japan/USB AC adapter and 3ft. USB power cable
9146-6	3ft. USB power cable (standard Type A plug to micro-B plug)
1691-0	miConverter S-Series wall mount bracket
1692-0	miConverter S-Series travel case

Optional Travel Case

Travel Case has individual pockets to hold the converter, cable and power adapter.